R E P O R T R E S U M E S

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HIGHER EDUCATION IN THE NATION'S FIRE SERVICE, INTERNATIONAL FIRE ADMINISTRATION INSTITUTE.

STATE UNIV. OF N.Y., ALBANY, CTR.FOR EXEC.DEVELOP.

PUB DATE FEB 68

EDRS PRICE MF-$0.50 HC-$2.44 59P.

DESCRIPTORS- *EDUCATIONAL PROGRAMS, *COLLEGES, *FIRE SCIENCE EDUCATION, PROGRAM DEVELOPMENT, *CURRICULUM, *DIRECTORIES, STATE AGENCIES, CURRICULUM DEVELOPMENT,

THIS PUBLICATION IS A REVISED AND UP-DATED EDITION OF A PUBLICATION, "FIRE SERVICE TECHNOLOGY CURRICULA SURVEY," BASED ON A SURVEY CONDUCTED IN 1966 BY THE INTERNATIONAL FIRE ADMINISTRATION INSTITUTE FOR THE PURPOSE OF ASCERTAINING THE SCOPE OF THE FIRE EDUCATION PROGRAMS IN THE NATION'S INSTITUTIONS OF HIGHER LEARNING. A DIRECTORY OF INSTITUTIONS OF HIGHER LEARNING OFFERING COURSES IN FIRE SCIENCE LISTS 58 SCHOOLS IN 18 STATES. CURRICULUM OFFERINGS IN FIRE SCIENCE ADMINISTRATION AND TECHNOLOGY ARE LISTED FOR 14 OF THESE PROGRAMS. BACKGROUND INFORMATION FOR IMPLEMENTING FIRE SCIENCE PROGRAMS IS GIVEN IN "COLLEGE AND UNIVERSITY PHILOSOPHY AND POLICY REGARDING NEW CURRICULA" AND "RECOMMENDATIONS FOR FIRE SCIENCE PROGRAM DEVELOPMENT AND IMPLEMENTATION." DIRECTORIES OF STATE FIRE TRAINING SUPERVISORS AND STATE FIRE MARSHALS AND A SUMMARY CHART OF FIRE SCIENCE-ADMINISTRATION COURSES AND A U.S. MAP SHOWING THEIR LOCATION ARE INCLUDED. THIS DOCUMENT IS AVAILABLE FOR $2.00 FROM CENTER FOR EXECUTIVE DEVELOPMENT, STATE UNIVERSITY OF NEW YORK AT ALBANY, 135 WESTERN AVENUE, ALBANY, NEW YORK 12203. (HC)

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STATE UNIVERSITY OF NEW YORK

INTERNATIONAL FIRE ADMINISTRATION INSTITUTE
Sponsored by International Association of Fire Chiefs

HIGHER EDUCATION IN THE NATION'S FIRE SERVICE

Center for Executive Development
State University of New York at Albany
Albany, New York

February, 1968

INTERNATIONAL FIRE ADMINISTRATION INSTITUTE
SPONSORED BY THE INTERNATIONAL ASSOCIATION OF FIRE CHIEFS
CHARTERED BY THE REGENTS OF THE STATE OF NEW YORK
AFFILIATED WITH THE STATE UNIVERSITY OF NEW YORK AT ALBANY

PURPOSE:

1. To engage in research and otherwise obtain material for the preparation of courses of study in fire administration and subjects related thereto, and to prepare such courses of study.

2. To make such material and courses of study in fire service administration and subjects related thereto available for use by educational institutions, particularly at the college level, in the United States and foreign countries, and to work with and assist educational institutions in the development of such material.

To give assistance by grants or establishment of scholarships, or otherwise, to students in the field of fire administration; and to receive grants and gifts for carrying out the objectives of the Institute.

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ACKNOWLEDGEMENT

This publication was compiled by the International Fire Administration Institute, Center for Executive Development, State University of New York at Albany.

The general development and various phases of the work were prepared by Fred Zeitler, Research Assistant, and assisted by Kenneth Duffield and Autumn Osborne.

A special thanks to Mrs. Margaret H. Adams of the Institute staff who typed and retyped the manuscript under a considerable amount of time pressure between draft and publication.

We gratefully acknowledge the splendid cooperation received from the many colleges, universities and state agencies who supplied the information reflected in the publication.

D. F. F.

1968

FOREWORD

The steady stirring of interest in, and enthusiasm for, systematic and deliberate programs of higher education for the fire service in the past two years is most significant. Powerful currents are flowing toward professionalizing the fire service .... toward enhancing the educational posture of the fire service .... toward increasing research efforts .... toward recruiting candidates with greater career potential.

The Wingspread Conference in 1966 provided a catalyst in the form of twelve statements of national significance to the fire problem in the United States; two of the statements were directly related to education, i. e., "Professional status begins with education," and "The scope, degree and depth of the educational requirements for efficient functioning of the fire service must be examined." These statements, though broad in scope, focused sharply on the current and dynamic knowledge explosion. The Wingspread spirit gained momentum at the Saratoga Symposium on Higher Education for the Fire Service, held in 1967. During the early part of 1967, the editors of Fire Engineering Magazine conducted a symposium of fire chiefs and educators to explore in depth the challenging years of the 1970's as related to the problem areas defined in the Wingspread Conference, the symposium findings were published in the September issue of Fire Engineering Magazine. President Johnson requested legislation be part of a national effort to reduce our shameful loss of life and property from fire (in 1967 12,200 persons died, property loss was $2,070,000,000.). The Fire Safety and Research Act of 1967 was introduced in Congress (S 1124 - HR. 11284), Title II of the Act proposes the appointment of a national commission on fire prevention and control. The December 1967 issue of "Firemen", a publication of the National Fire Protection Association, contained an excellent article entitled "Education - Which Way for the Fire Service", which again pointed out the sense of urgency by all concerned on this problem.

It is estimated that some nine million students will be enrolled in institutions of higher education by 1975. The nation's two year colleges are expanding rapidly, the present enrollment of some eight hundred thousand is expected to double by 1974. The two year college holds much promise for those in the fire service seeking post-high school technical training and an academic setting where perhaps they will be motivated to go on to the final two years of college and the baccalaureate degree. The high school drop-out is today's lost man; tomorrow's lost men will be the college drop-outs.

The International Fire Administration Institute, responding to hundreds of requests for guidance and educational counseling, conducted a survey of the nation's institutions of higher learning for the purpose of ascertaining the scope of the fire education programs. The survey was completed and the findings published in November, 1966. The demand for this publication has been beyond our expectations and is now in its fifth printing. The publication, entitled "Fire Science Technology Curricula Survey, has been sent to fire departments, institutions of higher learning, labor organizations, federal and state agencies, libraries, fire chiefs, deans of academic institutions, and personnel representing various organizational levels of the fire service.

This new publication, "Higher Education in the Nation's Fire Service" is a revised and up-dated edition of the original publication mentioned above, and contains additional data valuable to fire executives and college administrators charged with the responsibility for developing and implementing programs of higher education.

Professor D. F. Favreau
Executive Director
International Fire Administration
Institute
State University of New York at Albany
Albany, New York, 12203

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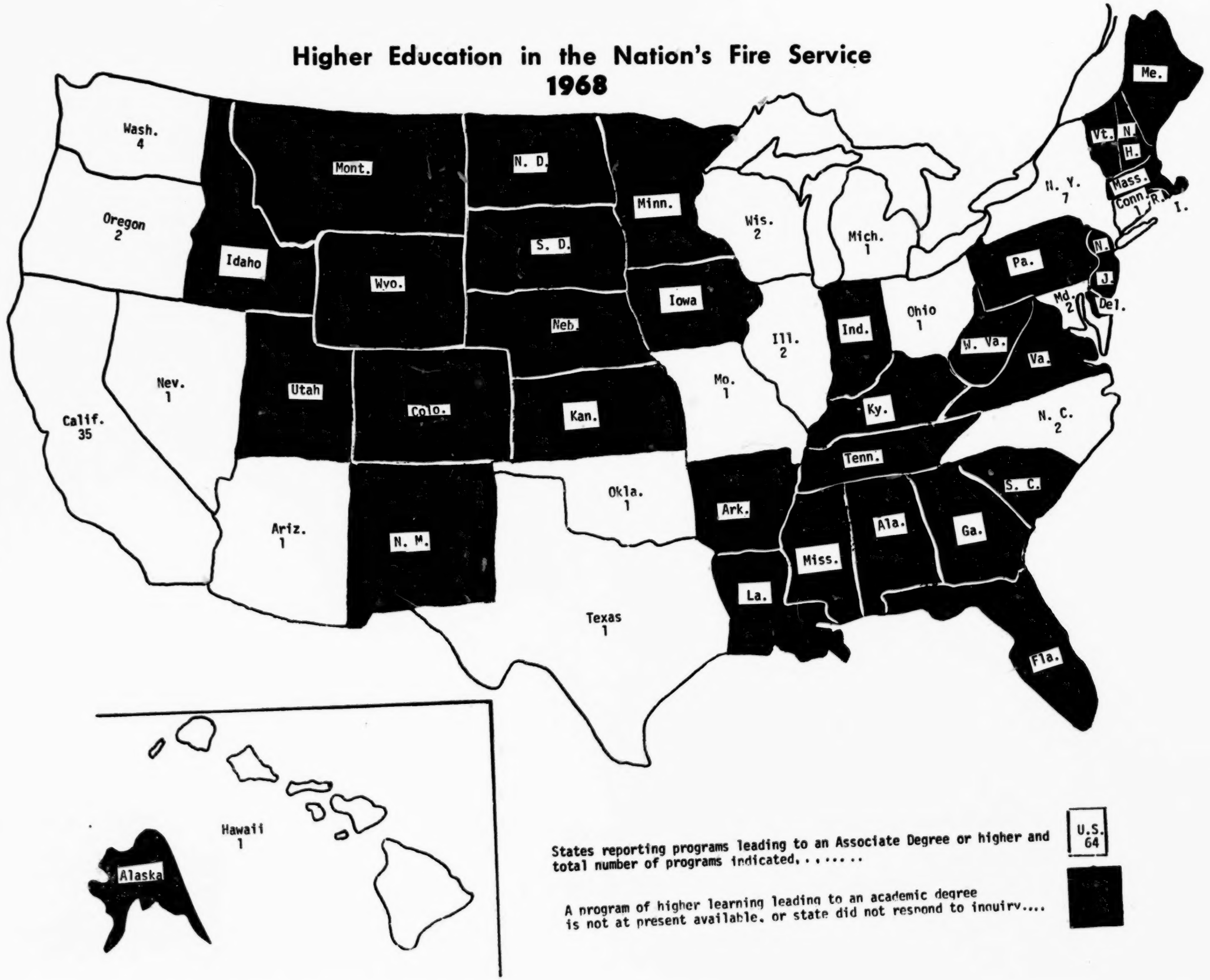
SELECTED SAMPLING OF FIRE SCIENCE COURSES

Colleges and Universities

Course Description	Allan Hancock College California	Auburn Community College New York	Antelope Valley California	Chaffey College California	Compton College California	Connecticut State Technical Institute	Forest Park C. C. Missouri	Glendale College California	Hudson Valley C. C. New York	Illinois Institute of Technology	Lansing Community College Michigan	Long Beach City College California	College of Marin California	University of Maryland Maryland	Milwaukee Inst. of Tech. Wisconsin	Monterey Peninsula Col. California	Mt. San Antonio College California	New York City C. C. New York	Oklahoma State University	Pasadena City College California	Racine Technical Inst. Wisconsin	Rio Hondo Jr. Col. California	Rowan Technical Inst. North Carolina	San Diego Jr. College California	San Jose City College California	College of San Mateo California	Santa Monica City Col. California	Santa Rosa Jr. College California	College of Sequoias California	Tacoma Voc. & Tech. Inst. Washington
FIRE SCIENCE & ADMINISTRATION - CORE COURSES																													
Fire Protection and Prevention	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fire Fighting-Tactics and Strategy	✓		✓		✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fire Investigation and Arson	✓		✓	✓		✓	✓				✓				✓	✓	✓		✓		✓	✓		✓		✓	✓	✓	✓
Legal Aspects of Fire Science		✓			✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓			✓
Organization and Procedure				✓		✓					✓		✓	✓	✓	✓	✓	✓			✓	✓		✓					
Leadership and Supervision	✓	✓		✓		✓											✓	✓							✓				
Industrial and Hazardous Materials	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓			
Hydraulic Technology	✓		✓		✓	✓	✓			✓	✓		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓
Equipment and Apparatus	✓		✓	✓	✓	✓	✓			✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LIBERAL ARTS COURSES																													
Chemistry		✓	✓	✓	✓	✓					✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		
Physics		✓			✓	✓	✓			✓			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓		
Math.		✓				✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓					
Social or Political Science	✓	✓		✓	✓		✓				✓		✓	✓	✓				✓		✓	✓	✓						
Statistics	✓									✓								✓											
English and Communications		✓		✓	✓	✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
ELECTIVES																													
Psychology		✓		✓	✓					✓			✓	✓	✓			✓			✓	✓							
Public Relations											✓								✓			✓							
Teacher Training	✓																												
Economics							✓			✓																			
MISCELLANEOUS INFORMATION																													
Degree	AS	AAS	Non-Deg.	AA	AAS	AAS	AA	AA	Non-Deg.	BS	AS	AS	AS	BS	AAS	AS	AA	AAS	AS	AA	AAS	AA	AAS	AS	AA	Non-Deg.	AA	AA	AA
Number of Graduates	2	0	0	2	0	0	3	0	0	900	0	0	0	62	0	3	7	0	159	5	0	0	7	27	4	480	2	0	0
Number of Enrolled Students at 1/'68	28	30	32	146	30	181	49	37	88	197	60	180	80	68	89	40	225	125	39	85	20	100	150	279	300	175	69	128	80
Date Program Began	'64	'65	'61	'64	'66	'64	'65	'65	'67	'03	'67	'63	'64	'57	'64	'62	'57	'65	'37	'65	'65	'63	'64	'60	'58	—	'60	'62	'67

Higher Education in the Nation's Fire Service
1968



States reporting programs leading to an Associate Degree or higher and total number of programs indicated. . . . . U.S. 64

A program of higher learning leading to an academic degree is not at present available, or state did not respond to inquiry....

ARIZONA

Name of School Phoenix College
Address 1202 West Thomas Road, Phoenix, Arizona 85013
Program Director Mildred B. Bulpitt
Program Title Fire Science
Date Program Began INA

Degree AA
Semester Hours in Major 33
No. of Students Enrolled INA
No. of Graduates To Date INA
No. of Instructors INA

CALIFORNIA

Name of School Allan Hancock College
Address 800 South Bradley Road, Santa Maria, Calif.
Program Director Brian McBride
Program Title Fire Science
Date Program Began Spring 1964

Degree Associate of Science Degree (AS)
Semester Hours in Major 47
No. of Students Enrolled 28
No. og Graduates To Date 2
No. of Instructors 2 part-time

Name of School Antelope Valley College
Address Lancaster, Calif.
Program Director R. W. Lundak
Program Title Fire Science
Date Program Began 1961

Degree Certificate
Semester Hours in Major 21
No. of Students Enrolled 32
No. of Graduates To Date --
No. of Instructors 3

C A L I F O R N I A (Contined)

Name of School Butte Jr. College District
Address 2060 3rd Street, Oroville
Program Director Earl P. McPhee
Program Title Fire Science
Date Program Began September, 1967

Degree AA and Certificate
Semester Hours in Major 42-45 quarter hours
No. of Students 60
No. of Graduates To Date - -
No. of Instructors 3 part-time

Name of School Cabrillo College
Address 6500 Soquel Drive Aptos 95003
Program Director John R. Hinton
Program Title Fire Science
Date Program Began September 1967

Degree AA and Certificate
Semester Hours in Major 30
No. of Students Enrolled None
No. of Graduates To Date 0
No. of Instructors 0

Name of School Chaffey College
Address Alta Loma, California
Program Director R. L. Custer
Program Title Fire Science
Date Program Began 1964

Degree AA
Semester Hours in Major 20
No. of Students Enrolled 146
No. of Graduates To Date 2
No. of Instructors 20

C A L I F O R N I A (Continued)

Name of School City College of San Francisco
Address So. Phelan Ave., San Francisco
Program Director Alexander Potter
Program Title Fire Science
Date Program Began Fall 1966

Degree AA
Semester Hours in Major 38
No. of Students Enrolled 165- 98 pre-employment, 67 in-service
No. of Graduates To Date - -
No. of Instructors 6

Name of School College of the Desert
Address 43-500 Monterey Ave. Palm Desert, California
Program Director Don Welty
Program Title Fire Science
Date Program Began Sept. 1963

Degree AS
Semester Hours in Major 23
No. of Students Enrolled 47
No. of Graduates To Date - -
No. of Instructors 2

Name of School College of Marin
Address Kentfield
Program Director Joseph Berruezo
Program Title Fire Science
Date Program Began 1964

Degree AS
Semester Hours in Major 30
No. of Students Enrolled 80
No. of Graduates To Date - -
No. of Instructors part-time

C A L I F O R N I A (Continued)

Name of School College of San Mateo Degree Non-degree

Address _____ Semester Hours in Major _____

Program Director Bernard Gjerdrun No. of Students Enrolled 175

Program Title Fire Science Training No. of Graduates To Date 480

Date Program Began _____ No. of Instructors _____

Name of School College of Sequoias Degree AA or Certificate

Address Mooney Blvd., Visalia, Calif. Semester Hours in Major 24

Program Director S. W. Eggleston No. of Students Enrolled 80

Program Title Fire Technology No. of Graduates To Date 0

Date Program Began September 1967 No. of Instructors 1

Name of School Columbia Junior College Degree AA

Address Sonora, California Semester Hours in Major 30

Program Director R. W. Deal No. of Students Enrolled - -

Program Title Fire Science No. of Graduates To Date - -

Date Program Began January 29, 1968 No. of Instructors 3 (proposed)

C A L I F O R N I A (Continued

Name of School Compton College
Address 1111 E. Artesia Blvd. Compton, Calif.
Program Director Don A. Yowell
Program Title Dept. of Fire Science
Date Program Began Sept. 1966

Degree AAS
Semester Hours in Major 20
No. of Students Enrolled 30
No. of Graduates To Date - -
No. of Instructors 10

Name of School Diablo Valley College
Address Diablo Valley Pleasant Hill, Calif.
Program Director Ward L. Cockerton
Program Title Fire Science
Date Program Began June 1, 1953

Degree AA
Semester Hours in Major 24
No. of Students Enrolled 115
No. of Graduates To Date 5
No. of Instructors 15

Name of School Fresno City College
Address 1101 University Ave. Fresno
Program Director C. E. Lackey
Program Title Fire Science
Date Program Began 1960

Degree AS
Semester Hours in Major 32
No. of Students Enrolled 73
No. of Graduates To Date 3
No. of Instructors 2

CALIFORNIA (Continued)

Name of School Glendale College
Address Glendale, Calif.
Program Director David C. Leek
Program Title Fire Science
Date Program Began 1965

Degree AA
Semester Hours in Major 20
No. of Students Enrolled 37
No. of Graduates To Date - -
No. of Instructors 1 (usually 3)

Name of School Hartnell College
Address 156 Homestead
Salinas
Program Director Lyman C. Fowler
Program Title Fire Science
Date Program Began Fall 1966

Degree AA and certificate
Semester Hours in Major 20
No. of Students Enrolled 40
No. of Graduates To Date 80
No. of Instructors 2

Name of School Long Beach City College
Address Business & Technology Campus
130 S.E. Pacific Coast Hwy.
Program Director Dale E. Taylor
Program Title Fire Science
Date Program Began Sept. 1963

Degree AA, AS, and certificate
Semester Hours in Major 20
No. of Students Enrolled 180
No. of Graduates To Date - -
No. of Instructors 4

C A L I F O R N I A (Continued)

Name of School Los Angeles Harbor College — Degree AA

Address 1111 Figueroa Place, Wilmington — Semester Hours in Major

Program Director Nicholas Zorotovich — No. of Students Enrolled 240

Program Title Fire Science — No. of Graduates To Date 100

Date Program Began 1958 — No. of Instructors 5

Name of School Merced College — Degree AA

Address 3600 M Street Merced, Calif. — Semester Hours in Major 20

Program Director John Mehrems — No. of Students Enrolled 30

Program Title Fire Science — No. of Graduates To Date None

Date Program Began 1964 — No. of Instructors 2

Name of School Modesto Junior College — Degree AA and Certificate

Address Modesto, Calif. — Semester Hours in Major 30

Program Director Louis A. Schwank — No. of Students Enrolled 40

Program Title Fire Science — No. of Graduates To Date 0

Date Program Began 1966 — No. of Instructors 3

C A L I F O R N I A (Continued)

Name of School Monterey Peninsula College
Degree AS
Address 980 Fremont
Semester Hours in Major 22
Program Director Stephen A. James
No. of Students Enrolled 40
Program Title Fire Science
No. of Graduates To Date 3
Date Program Began 1962
No. of Instructors 2

Name of School Mt. San Antonio College
Degree AA
Address 1100 N. Grand Ave. Walnut Calif. 91789
Semester Hours in Major 20
Program Director Dr. Gilbert B. Stuckey
No. of Students Enrolled 225: 200 in-service, 25 pre-service
Program Title Dept. of Public Safety/ & Service
No. of Graduates To Date 7
Date Program Began 1957
No. of Instructors 5

Name of School Palomar College
Degree AA
Address San Marcos, Calif.
Semester Hours in Major 20
Program Director James Soulas
No. of Students Enrolled 32
Program Title Fire Science
No. of Graduates To Date 1
Date Program Began 1958
No. of Instructors 2

C A L I F O R N I A (Continued)

Name of School Pasadena City College — Degree AA

Address 1570 E. Colorado — Semester Hours in Major

Program Director Victor E. Stephens — No. of Students Enrolled 85

Program Title Fire Science — No. of Graduates To Date 5

Date Program Began Sept. 1965 — No. of Instructors 25

Name of School Rio Hondo Jr. College — Degree AA

Address 3600 Workman Mill Rd. — Semester Hours in Major 20

Program Director W. W. Lorbeer — No. of Students Enrolled 100

Program Title Fire Science — No. of Graduates To Date 0

Date Program Began Sept. 1963 — No. of Instructors 4

Name of School Riverside City College — Degree AA and certificate

Address 3650 Fairfax Ave. Riverside, Calif. 92506 — Semester Hours In Major 20

Program Director Cecil D. Green — No. of Students Enrolled

Program Title Fire Science — No. of Graduates To Date 0

Date Program Began 1957 — No. of Instructors varies

CALIFORNIA (Continued)

Name of School San Bernardino Valley/ College
Address 701 So. Mt. Vernon Ave. San Bernardino, Calif.
Program Director Thurston B. Swartz
Program Title Fire Science
Date Program Began 1961

Degree AA
Semester Hours in Major 3-6/semester
No. of Students Enrolled 100
No. of Graduates To Date - -
No. of Instructors 10

Name of School San Diego Jr. Colleges
Address 835-12th, San Diego
Program Director Kenneth Fawcett
Program Title Fire Science
Date Program Began Fall 1960

Degree AS and certificate
Semester Hours in Major 28
No. of Students Enrolled 279
No. of Graduates To Date 27
No. of Instructors 2 full time
5 evenings

Name of School San Joaquin Delta Jr. College
Address 3301 Kensington Way Stockton, Calif.
Program Director E. T. Barnett
Program Title Fire Science
Date Program Began 1967

Degree AA
Semester Hours in Major 24
No. of Students Enrolled 120
No. of Graduates To Date 0
No. of Instructors 3

C A L I F O R N I A (Continued)

Name of School San Jose City College
Address 2100 Moorpark Ave. San Jose, 95114
Program Director Howard Biebeshemer
Program Title Fire Service
Date Program Began 1958

Degree AA and certificate
Semester Hours in Major 29
No. of Students Enrolled 300
No. of Graduates To Date 26
No. of Instructors 5

Name of School Santa Ana College
Address 1530 W. 17 St. Santa Ana, Calif. 90712
Program Director Edwin M. Norvell
Program Title Fire Science
Date Program Began Sept. 1958

Degree AA
Semester Hours 21
No. of Students Enrolled 168
No. of Graduates To Date 50
No. of Instructors 5

Name of School Santa Monica City College
Address 1815 Pearl St. Santa Monica, Calif. 90406
Program Director Fred S. Brierley
Program Title Fire Science
Date Program Began 1960

Degree AA
Semester Hours in Major 40
No. of Students Enrolled 69
No. of Graduates To Date 2
No. of Instructors 5

CALIFORNIA (Continued)

Name of School Santa Rose Jr. College
Address 1501 Mendocino Ave. Santa Rosa, 95401
Program Director John J. Healy
Program Title Fire Science
Date Program Began 1962

Degree AA or certificate
Semester Hours in Major 17
No. of Students Enrolled 128
No. of Graduates To Date unknown
No. of Instructors 5

Name of School Shasta College
Address Redding, Calif.
Program Director Lloyd Livingston
Program Title Fire Science
Date Program Began Spring

Degree AA
Semester Hours in Major 30
No. of Students Enrolled 60
No. of Graduates To Date 0
No. of Instructors 1

Name of School Yuba College
Address North Beale Rd. Marysville, Calif.
Program Director Dan R. Dillon
Program Title Fire Science
Date Program Began Spring, 1966

Degree AA
Semester Hours in Major 20
No. of Students Enrolled 25
No. of Graduates To Date - -
No. of Instructors 4

CONNECTICUT

Name of School State Technical/ College
Address 401 Flatbush Ave. Hartford, Conn. 06106
Program Director Lucian Lombardi
Program Title Fire Technology and Administration
Date Program Began Sept. 1964

Degree AAS
Semester Hours in Major 38
No. of Students Enrolled 181
No. of Graduates to Date - -
No. of Instructors 6

HAWAII

Name of School Honolulu Community/ College
Address 874 Dillingham Blvd. Honolulu, Hawaii 96817
Program Director Richard K. Miyashiro
Program Title Fire Science
Date Program Began Sept. 1967

Degree AAS
Semester Hours in Major 30
No. of Students Enrolled 110
No. of Graduates To Date 0
No. of Instructors 3

ILLINOIS

Name of School Illinois Institute of/ Technology
Address Tech. Center Chicago 60616
Program Director Dr. R. H. Jensen
Program Title Fire Protection Engi-neering
Date Program Began 1903

Degree BS and certificate
Semester Hours in Major 34
No. of Students Enrolled 197
No. of Graduates To Date 900
No. of Instructors 6

I L L I N O I S (Continued)

Name of School Rock Valley College
Address 3301 N. Mulford Rd. Rockville, Ill.
Program Director Al Andrews
Program Title Fire Science
Date Program Began 1967

Degree AS
Semester Hours in Major 48
No. of Students Enrolled 67
No. of Graduates To Date - -
No. of Instructors 1

M A R Y L A N D

Name of School University of Maryland
Address College Park, Md. 20740
Program Director Dr. John L. Bryan
Program Title Fire Protection Curriculum
Date Program Began 1957

Degree BS
Semester Hours in Major 30
No. of Students Enrolled 68
No. of Graduates To Date 62
No. of Instructors 3

Name of School Montgomery Jr.College
Address Rockville, Maryland 20850
Program Director H. C. Boyle
Program Title Fire Science
Date Program Began 1967

Degree AA
Semester Hours in Major 27
No. of Students Enrolled 100
No. of Graduates To Date 0
No. of Instructors 3

M I C H I G A N

Name of School Lansing Community College
Address 419 N. Capitol Ave. Lansing, Mich.
Program Director Edwin C. Bergmann
Program Title Fire Science Technology
Date Program Began Jan. 1967

Degree AS and certificate
Quarter Hours in Major 57
No. of Students Enrolled 60
No. of Graduates To Date - -
No. of Instructors one

M I S S O U R I

Name of School Forest Park Community College
Address 5600 Oakland Ave. St. Louis, Mo. 63110
Program Director Victor Reef
Program Title Fire Protection Technology
Date Program Began 1965

Degree AA and certificate
Semester Hours in Major 40-AA 18-certificate
No. of Students Enrolled 49
No. of Graduates To Date 3
No. of Instructors 4

N E V A D A

Name of School Nevada Southern University
Address Las Vegas, Nevada
Program Director Kenneth O. Johnson
Program Title Fire Science
Date Program Began Sept. 1967

Degree AS
Semester Hours in Major 21
No. of Students Enrolled 45
No. of Graduates To Date - -
No. of Instructors 2

NEW YORK

Name of School Auburn Community College
Degree AAS
Address Auburn, New York
Semester Hours in Major 24
Program Director Robert R. Gallo
No. of Students Enrolled 30
Program Title Fire Science
No. of Graduates To Date - -
Date Program Began Fall 1965
No. of Instructors 2

Name of School Hudson Valley C. C.
Degree Certificate
Address 80 Vandenburgh Ave.
Semester Hours in Major - -
Program Director A. Granito
F. McGarry
No. of Students Enrolled 88
Program Title Into. to Fire Science
No. of Graduates To Date None
Date Program Began Sept. 1967
No. of Instructors 2

Name of School New York City Community College of the City University of
Degree AAS
Address 300 Say St. New York Brooklyn, N. Y. 11201
Semester Hours in Major 22
Program Director Sylvan P. Stern
No. of Students Enrolled 125
Program Title Fire Science
No. of Graduates To Date None
Date Program Began Sept. 1965-evening
Sept. 1966-day
No. of Instructors 6

N E W Y O R K

Name of School Evening Division Onondaga Community College
Degree Certificate

Address 700 E. Water St., Syracuse, N.Y.
Semester Hours in Major - -

Program Director E. W. Flansburg
No. of Students Enrolled 60

Program Title Fire Science
No. of Graduates To Date None

Date Program Began Fall 1966-67
No. of Instructors 4

Name of School State University at Farmingdale
Degree Certificate

Address Farmingdale, Long Island, N. Y.
Semester Hours in Major - -

Program Director William H. Hewitt
No. of Students Enrolled 100

Program Title Fire Science
No. of Graduates To Date none

Date Program Began September, 1966
No. of Instructors 9

Name of School Suffolk C.C. College
Degree AAS and certificate

Address 533 College Rd. Selden, N. Y. 11784
Semester Hours in Major 39

Compiled by Peter A. Spina
No. of Students Enrolled 50

Program Title Fire Science
No. of Graduates To Date none

Date Program Began Feb. 1967
No. of Instructors 2 to 3

NEW YORK (Continued

Name of School Westchester C. C.
Address 75 Grasslands Road, Valhalla, N. Y.
Program Director Allen R. Fales
Program Title Fire Science
Date Program Began Sept. 1966

Degree AAS
Semester Hours in Major 20
No. of Students Enrolled 50
No. of Graduates To Date 0
No. of Instructors 4

NORTH CAROLINA

Name of School Richmond Technical Inst.
Address P.O. Box 1189, Hamlet, N. C.
Program Director Joe Nanny
Program Title Science Fire Technology
Date Program Began Feb. 1967

Degree AAS
Quarter Hours in Major 37 + 22 in lab.
No. of Students Enrolled 31
No. of Graduates To Date None
No. of Instructors 5

Name of School Rowan Technical/ Institute
Address P. O. Box #1555, Salisbury, N. C.
Program Director R. G. McIntyre
Program Title Fire & Safety Engineering Tech. & Fire Science Tech.
Date Program Began Sept. 1, 1964

Degree AAS
Semester Hours in Major 44
No. of Students Enrolled 150
No. of Graduates To Date 7
No. of Instructors 3 - full, 8 - part time

O H I O

Name of School Cuyahoga Community Col. Degree AS
Address 2214 E. 14th St. Cleveland, Ohio 44115 Semester Hours in Major 29
Program Director Dr. Fred C. Sutton No. of Students Enrolled 77
Program Title Fire Technology No. of Graduates To Date none
Date Program Began Sept. 1965 No. of Instructors 4

O K L A H O M A

Name of School Oklahoma St. University The Technical Institute Degree AS
Address Stillwater, Oklahoma Semester Hours in Major 20
Program Director D. W. Brown No. of Students Enrolled 39
Program Title Fire Protection Tech. No. of Graduates To Date 159
Date Program Began 1937 No. of Instructors 2

O R E G O N

Name of School Portland Community/ College Degree AS
Address Portland, Oregon Quarter Hours in Major 67 - 79
Program Director Donald Uppendahl No. of Students Enrolled 40
Program Title Fire Protection Tech. No. of Graduates To Date None
Date Program Began 1966 No. of Instructors 6

OREGON

Name of School Salem Technical Vocational Community College
Address 4389 Satter Drive, N. E. Salem, Oregon 97303

Degree Associate Degree
Semester Hours in Major 49

Program Director Willard B. "Skip" Emerson
Program Title Fire Protection Technology

No. of Students Enrolled 15
No. of Graduates To Date 5

Date Program Began Sept. 1965

No. of Instructors 4

TEXAS

Name of School South Texas Jr. College
Address #1 Main St. Houston, Texas 77002
Program Director Alcus Greer
Program Title Fire Administration & Tech.
Date Program Began Sept. 1965

Degree AA
Semester Hours in Major 24
No. of Students Enrolled 40
No. of Graduates To Date none
No. of Instructors 10

UTAH

Name of School Utah Technical College
Address 1395 North 150 East Provo, Utah 84601
Program Director Roger B. Honeyman
Program Title Fire Science
Date Program Began Anticipate Fall 1968

Degree AS
Semester Hours in Major INA
No. of Students Enrolled INA
No. of Graduates To Date 0
No. of Instructors INA

WASHINGTON

Name of School Big Bend Community/College
Address Moses Lake, Wash. 98837
Program Director Geo. E. Conatore
Program Title Fire Service Training
Date Program Began Sept. 1965

Degree Non degree, AAS applied for
Quarter Hours in Major 40 hrs./qrtr.
No. of Students Enrolled 15
No. of Graduates To Date none
No. of Instructors 1

W A S H I N G T O N

Name of School Clark College — Degree AAS

Address Vancouver, Wash. — Semester Hours in Major - - - -

Program Director - - - - — No. of Students Enrolled - - - -

Program Title - - - - — No. of Graduates To Date - - - -

Date Program Began In planning stage — No. of Instructors - - - -

College

Name of School Spokane Community/ — Degree AS

Address E. 3403 Mission Spokane, 99202 — Quarter Hours in Major 60

Program Director H. C. Hunter — No. of Students Enrolled 75

Program Title Fire Science — No. of Graduates To Date none

Date Program Began Jan. 1964 — No. of Instructors varied - 6

Technical

Name of School Tacoma Vocational-/ — Degree AA

Address 1101 S. Yakima 98405 — Semester Hours in Major 81

Program Director Paul K. Parkhurst — No. of Students Enrolled 14

Program Title Fire Service Training — No. of Graduates To Date 20

Date Program Began 2/1/65 — No. of Instructors - - - -

W I S C O N S I N

Name of School Milwaukee Inst. of/ Technology
Degree AAS

Address 1015 No. 6th St.
Semester Hours in Major 25

Program Director Edwin Taibl
No. of Students Enrolled 89

Program Title Fire Technology
No. of Graduates To Date - - -

Date Program Began Sept. 1964
No. of Instructors 4

Name of School Racine Technical Inst.
Degree AAS

Address 620 Lake Ave.
Semester Hours in Major 28

Program Director Mr. Howard Heigl
No. of Students Enrolled 20

Program Title Fire Technology
No. of Graduates To Date none

Date Program Began Sept. 1965
No. of Instructors 3

SELECTED CURRICULA

FOURTEEN PROGRAMS

FIRE ADMINISTRATION

FIRE SCIENCE TECHNOLOGY

Auburn Community College
Auburn, New York

Program Title: Fire Science Program
Director: Robert Gallo, Director
Degree: A A S
Date Program Began: Fall 1965

Major	Credit Hours
Introduction to Fire Science	6
Building Construction and Materials	6
Essentials of Fire Prevention	3
Municipal Water Supplies	3
Fire Administration	3
Fire Administration and Law	3
	24

Non-major	
Freshman English	6
Effective Speech	3
Introduction to Chemistry	6
Technical Physics	8
Essentials of American National Government	3
Principles of Human Behavior	3
Freshman Mathematics I	3
Electives	4
	36

City University of New York
New York Community College of Applied Arts and Sciences
300 Say Street
Brooklyn, New York

Program Title: Fire Science
Director: Sylvan P. Stern
Degree: A A S
Date Program Began: September 1965

Major	Credit Hours
Systems of Construction	3
Building and Fire Codes	3
Fire Hazards and Controls I & II	6
Hydraulics	4
Fire Department Administration	3
	19

Non-major	
English Composition	3
Mathematical Analysis I & II	8
Physics I & II	8
Introduction to Psychology	3
General Chemistry I & II	8
Personnel Psychology	3
Effective Speaking or) Voice and Diction)	3
Statistics	3
Chemistry of Hazardous Materials	3
Electives	9
	51

Compton College
1111 E. Artesia Boulevard
Compton, California

Program Title: Department of Fire Science
Director: Don A. Yowell
Degree: A.A.S.
Date Program Began: September, 1966

Major	Credit Hours
Introduction to Fire Protection	3
Introduction to Fire Supression	3
Fundamentals of Fire Prevention	3
Fire Fighting Tactics and Strategy	3
Fire Protection and Equipment Systems	2
Related Codes and Ordinances	3
Fire Hydraulics	3
Fire Apparatus and Equipment	3
Fire Company Organization and Procedure	3
Rescue Practices	3
	29

Non-Major	
Reading and Composition	6
Political and Social History of the U. S.	6
Chemistry	5
Introduction to Physics	3
Health Education	2
Body Building	1
Introduction to Life Science	4
General Psychology	3
Public Speaking	3
English Literature	3
Introduction to Philosophy	3
Physical Education	1
	40

Cuyahoga Community College
Brownell Science and Technology Building
2214 E. 14 Street
Cleveland, Ohio

Program Title: Fire Technology
Director: Dr. Fred C. Sutton
Degree: Associate Degree
Date Program Began: September, 1965

Major	Credit Hours
Organization for Fire Protection	2
Fire Fighting Tactics	3
Fire Protection Systems	3
Fire Fighting Tactics and Command	3
Chemistry of Hazardous Materials	4
Fire Prevention Practices	4
Fire Investigation Methods	2
Fire Hydraulics	3
Municipal Public Relations	2
Personnel Training Methods	3
	29

Non-major	
English	3
Intermediate Algebra	3
Social Science	6
Introductory Physics	4
Practical Psychology for Supervision	3
Principles of Public Speaking	3
Introductory Chemistry	4
Health or Physical Education	2
Humanities or Social Science	6
	34

Illinois Institute of Technology
Chicago, Illinois

Program Title: Fire Protection Engineering
Director: Rolf Jensen
Degree: Bachelor of Science in Fire Protection Engineering
Date Program Began: 1903

Major	Credit Hours
Fire Insurance Schedule Rating	4
Fire Protection Engineering Laboratory	4
Property Insurance	2
Fire Protection	3
Casualty Insurance	2
Public Fire Protection	3
Industrial Hazard Control	6
Electrical Hazard Control	3
Extinguishing and Detection Circuit	6
Fire Protection Engineering Application	1
	34

Non-Major	
Analy. & Calculus	4
Electricity and Magnetism	4
Principles of Economics	6
Thermodynamics	4
Differential Equations	4
Atomic Physics	3
Statics and Dynamics	4
Strength of Materials	4
Organic Chemistry	4
Programming for Digital Computer	2
Fluid Mechanics	3
Electronic Processes in Materials	3
Heat & Mass Tran.	3
American Constitutional System	3
Liberal Studies Elective	3
Electrical Circuit Analysis	3
Humanities Elective	3
Engineering Electronics	4
Liberal Arts Elective	3
	67

Milwaukee Institute of Technology
1015 North Sixth Street
Milwaukee, Wisconsin

Program Title: Fire Technology
Director: Edwin S. Taibl
Degree: Associate in Applied Science
Date Program Began: September 1964

Major:	Credit Hours
Fire Protection Organization	2
Fire Fighting Tactics and Strategy	6
Chemistry of Hazardous Materials	3
Building Construction and Fire Ordinances	3
Fire Investigation	3
Fire Prevention	3
Fire Protection Equipment and Systems	3
Methods and Practices	3
Fluid Power Fundamentals	4
	30

Non-major	
Communication Skills	6
Technical Mathematics	8
Chemistry I	5
American Institutions	3
Technical Science	6
Mechanics of Materials	3
Psychology of Human Relations	3
Business and Industrial Relations	3
Physical Education	1
	38

Montgomery Junior College
Rockville, Maryland 20850

Program Title: Fire Science
Director: H. C. Boyce
Degree: A A
Date Program Began: 1967

Major	Credit Hours
Orientation	1
Fire Protection Organization	3
Fundamentals of Fire Suppression	3
Fire Service Administration	3
Building Codes and Construction	3
Fire Prevention and Inspections	3
Hazardous Materials	3
Fire Service Hydraulics and Water Supply	3
Advanced Fire Tactics and Strategy	3
Fire Detection and Suppression Systems	3
	28

Non-Major	
General Chemistry	8
Techniques of Reading and Writing	6
Math	3
Physical Education	4
Political Science	6
General Psychology	3
Fundamentals of Speech	3
Human Relations in Management	3
Humanities	3
	39

Oklahoma State University
The Technical Institute
Stillwater, Oklahoma

Program Title: Fire Protection Technology
Director: D. W. Brown
Degree: Associate Degree in Fire Protection Technology
Date Program Began: 1937

Major	Credit Hours
Fire Hazards and Causes	2
Principles of Fire Inspection	2
Fire Protection	2
Fire Codes and Standards	2
Industrial Fire Hazards	2
Fire Protection Hydraulics	2
Fire Extinguishing and Alarm Systems	2
Automatic Sprinklers	2
Water Supply Analysis	2
Fire Inspection Practices	2
	20

Non-major	
Technical Mathematics	5
General Chemistry	8
Architectural Drawing and Plan Reading	4
Personal and Occupational Guidance	1
Freshman Composition	6
Basic Electricity Codes and Inspections	3
Industrial Safety Engineering	2
General Insurance	3
Challenge in American Democratic Life	4
Applied Physics	4
American Industrial Development	2
Introduction to Public Speaking	3
Property and Casualty Insurance	3
	48

Racine Technical Institute
620 Lake Avenue
Racine, Wisconsin

Program Title: Fire Technology
Director: Mr. Howard Heigl
Degree: A A S
Date Program Began: September, 1965

Major	Credit Hours
Fire Protection Organization	2
Fire Fighting Tactics and Strategy I	3
Chemistry of Hazardous Materials	3
Fire Fighting Tactics & Strategy II	3
Building Construction & Fire Ordinances	3
Fire Investigation	3
Fire Prevention	2
Fire Protection Equipment & Systems	3
Methods and Practices	3
Industrial Hydraulics	4
	29

Non-major	
Technical Math. 1 and 2	8
Communication Skills	3
Chemistry	5
American Institutions	3
Technical Readings & Reprints	3
Technical Physics 1 and 2	7
Mechanics of Materials	3
Psychology of Human Relations	3
Business & Industrial Relations	3
Physical Education	1
	39

Rowan Technical Institute
Interstate Highway 85 at Klumac Road
Post Office Box 1555
Salisbury, North Carolina

Program Title: Fire Safety Engineering Technology
Director: R. G. McIntyre
Degree: Associate in Applied Science
Date Program Began: September 3, 1964

Major	Credit Hours
Introduction to Fire Protection Hazards	3
Municipal Fire Protection	3
General Insurance	3
Construction Codes and Material Rating	5
Fire Fighting Strategy	3
Chemistry of Flammable Materials	4
Insurance Grading Schedules	3
Industrial Hazards and Fire Prevention	4
Multiple Line Insurance and Rating Schedules	4
Hydraulics & Water Distribution	4
Inspection Principles & Practices	5
Fire Protection Law	3
Sprinkler and Standpipe Systems	4
Automatic Alarm & Extinguishing System	4
Chemical and Radiation Hazards	4
Industrial Safety and Security	3
	59

Non-major	
Grammar	3
Technical Mathematics	10
Physics: Properties of Matter	4
Technical Drafting	4
Composition	3
Physics: Work, Energy, Power	4
Report Writing	3
Physics: Electricity	4
Chemistry	5
Oral Communications	3
Social Science I and II	6
	49

Salem Technical Vocational Community College
4389 Satter Drive N. E.
Salem, Oregon

Program Title: Fire Protection
Director: Willard B. "Skip" Emerson
Degree: Associate in Science

Major	Credit Hours
Introduction to Fire Protection	3
Fire Apparatus and Equipment	3
Blueprint Reading for Firemen	3
Physical Science for Firemen	4
Fundamentals of Fire Prevention	3
Firefighting Skills I	3
Hazardous Materials I	3
Firefighting Skills II	3
Hazardous Materials II	3
Rescue and Emergency Care	4
Fire Department Hydraulics	4
Fire Company Organization and Duty Assignments	3
Pump Operations and Practical Hydraulics	3
Introduction to Fire Department Administration	3
Fixed Systems and Extinguishers	3
Firefighting Tactics and Strategy	3
Communications and Alerting Systems	3
Water Distribution Systems	3
Fire Investigation	4
Building Construction for Fire Protection	3
	64

Non-major	
Introduction to Psychology	3
Mathematics	6
Communication	3
The Physical World	6
Communication Skills	3
Psychology of Human Relations	3
American Institutions	3
Technical Report Writing	3
	30

South Texas Junior College
#1 Main Street
Houston, Texas 77002

Program Title: Fire Administration and Technology
Director: Alcus Greer
Degree: Associate in Arts
Date Program Began: September 1965

Major	Credit Hours
F Ad. 131 Fire Administration I	3
F.Ad. 132 Fire Administration II	3
F.Ad. 133 Fire Protection Equip. and Alarm Systems	3
F.Ad. 231 Fire Prevention and Investigation	3
F.Ad. 233 Fire Fighting Tactics	3
F.Ad. 134 Supervision and Organization	3
F.Ad. 232 Fundamentals of Fire Insurance	3
	21

Non-major

Eng. 131 Rhetoric and Composition	3
Hist. 135 U. S. History	3
Psy. 131 Effective Reading and Study	3
E. Dr. 121 Engineering Graphics	2
Eng. 132 Rhetoric and Composition	3
Hist. 136 U. S. History	3
Spch. 131 Fundamentals of Speech	3
Math. 130 Intermediate Algebra	3
E. Dr. 122 Descriptive Geometry	2
Eng. 231 English Literature or Equivalent	3
Gov. 233 American Government	3
Gov. 234 American Government	3
Spch. 132 Public Speaking	3
D. P. 131 Introduction to Data Processing	3
	40

Tacoma Vocational and Technical Institute
1101 South Yakima Avenue
Tacoma, Washington 98405

Program Title: Fire Science Technology
Director: Bruce Brennan
Degree: Associate Degree in Technical Arts
Date Program Began: February, 1965

Major	Credit Hours
Fire Service History and Organization	60
Apparatus and Equipment	70
Water Distribution Systems	15
Fire Prevention	150
Fire Fighting Tactics	200
Fire Protection Equipment and Systems	30
Fire Hydraulics	60
Fire Science	60
Fire Alarm Systems and Communications	20
Radiological Hazards	15
Fire Investigation and Detection	30
	710

Practical Instruction	
Fire Department Equipment Practices	820
Rescue Evolutions	60
Portable Fire Extinguishers	8
Fixed Fire Protection Systems	10
Fire Alarm Systems and Communications	30
Radiological and Hydrocarbon Detection Devices	16
Safe Driving Practices	60
Fire Investigation and Detection	10
	1014

Non-Major	
Safety and First Aid	30
Oral and Written Communications	35
Human Relations	35
	100

University of Maryland
College Park, Maryland
Revised Curriculum effective February 1, 1968

Program Title: Fire Protection
Director: John L. Bryan
Degree: Bachelor of Science
Date Program Began: September 1967

		Semester I	Semester II
	Freshman Year		
MATH 19	Elementary Analysis	4	
MATH 20	Calculus I		4
CHEM. 1, 3	General Chemistry	4	4
ENES 1	Introductory Engineering Science	3	
ENES 10	Mechanics		3
PHYS 30	General Physics I		3
	General Education Requirement	3	3
HLTH 2	Personal and Community Health	2	
	Physical Activities	1	1
	TOTALS	17	18
	Sophomore Year		
	General Education Requirement	3	3
MATH 21,22	Calculus II, III	4	4
PHYS 31,32	General Physics II, III	4	4
ENES 20	Mechanics of Materials		3
ENES 21	Dynamics	3	
ENFP 80	Fire Protection Organization	3	
ENFP 90	Essentials of Fire Protection		3
	TOTALS	17	17
	Junior Year		
	General Education Requirement	3	3
ENEE 50	Fundamentals of Electrical Engineering		3
ENES 30	Materials Science or	3	
ENCE 50	Fundamentals of Engineering Materials		
ENCE 112	Applied Mathematics in Engineering or	3	
MATH 66	Differential Equations		
ENCE 105	Fluid Mechanics		3
ENFP 110	Installations and Equipment	3	
ENFP 112	Fire Protection Fluids and Systems		3
ENFP 115	Water Suppression Systems		3
ENFP 120	Construction Fundamentals and Ins. Sched.	3	
	Approved Electives*	2-3	2-3
	TOTALS	17-18	17-18

*Note 1: Approved Electives may be Technical Electives or approved upper division courses from the Department of Psychology, Sociology, Economics, Business and Public Administration, or Industrial Education.

University of Maryland (Continued)

	Senior Year	Semester I	Semester II
	General Education Requirement	3	3
BSAD 191	Property Insurance		3
ENME 100	Thermodynamics	3	
ENCE 100	Engineering Analysis & Computer Program	3	
ENCH 142	Environmental Consideration of Nuclear Eng.		3
ENFP 111	Process and Transportation Hazards		3
ENFP 114	Fire Analysis	3	
ENFP 116	Problem Synthesis and Design	3	
ENFP 117	Technical Projects		3
	Approved Technical Electives **	3	3
	TOTALS	18	18

**Note 2: Approved Technical Electives must be upper division courses offered in the College of Engineering, mathematics, or physics. Total credit hours required for graduation, excluding physical education and health: 135-137.

COLLEGE AND UNIVERSITY PHILOSOPHY AND POLICY

REGARDING NEW CURRICULA

Rapid developments in all fields have over the last ten years increased astonishingly the requests of various groups for recognition of their educational needs in the nation's institutions of higher learning. The scope of collegiate instruction, research and service thus has expanded more since World War II than during any previous 25 year period. New publics, new programs and new policies characterize and dramatize the change. The general array of curricula and courses presented here gives simple testimony.

However, many community colleges, particularly, the senior colleges, and the graduate schools have been hard pressed to find resources, facilities and personnel to respond. At the same time they have in many places found it difficult to revise the concepts of higher education which have given direction to choice to what they will do over recent decades, not to speak of centuries. Wherein there are gaps, then, in areas or institutional types in this report, there are doubtless many and good reasons.

At the same time, one must recognize institutions of higher learning have on the whole not adapted easily to the needs of the application world, and those who would obtain recognition have not seldom found the route to approved courses and programs and degrees an easy one. Those who control most collegiate institutions, the faculties in the respected disciplines, have not yielded to a broad spectrum of petitioners without careful consideration and intensive searching. They have tended to guard jealously the limits of the subject matter appropriate and to require full evidence that competence for certain vocational and semi-professional tasks cannot be acquired under other auspices.

Albeit, the new breed of professor in institutions of higher learning is quite aware of the growing demand for higher skill, increased judgment, and more theoretical foundation for effective performance in many old and many more new areas of service. He is, as well, aware of the impact of further education upon the economic and human condition of the society. He is sympathetic to the upward reach of the technicians and the quasi-professionals and is particularly conscious of the general swell of ambition to be further educated, specially and generally, in vast numbers, not only of our youth, but of those who have but recently launched upon lifelong commitment.

Yet, the decision making bodies in most institutions rely upon relatively common reference points in acting upon requests which come to them from groups who feel the time has come for collegiate recognition. As those who would improve the fire service and would obtain collegiate cognizance of their need prepare proposals, it should be useful for them to keep in mind that

1. Generally, courses of study and curricula in collegiate institutions require a basis in theory and employ a teaching method which calls

upon the intellective processes for critical examination of this theory and for appraisal of possible alternatives in application. Although selected disciplines rely heavily upon demonstration and require the development of skills appropriate to higher order application, the usual sentiment is opposed to programs which are essentially focused upon the development of manual skills.

2. Recognition and specification of the theoretical base and emphasis upon competence in higher order intellective skills have thus been sought by collegiate faculty in the proposals and materials presented by those who wish academic sponsorship. The stated objectives of courses and programs have been examined carefully by college curriculum committees and evidence of the level of instruction searched for in content outlines and recommended resources.

3. These items reveal in themselves the need for personnel authoritatively equipped to deal effectively with instructional level anticipated. It goes without saying that in an incipient professional group there are many with not only vocational knowledge and skills but substantial command of more esoteric and complex components of proper education of technicians and professionals. Unfortunately, such competence does not, as a rule, find acceptance in the university family. Faculties of collegiate institutions recognize the occasional lack in those who possess academic credentials in the form of degrees, but institutions of higher education seldom will compromise on their expectation to have degree holding instructors responsible for courses recognized as of collegiate quality. Those outside colleges and universities usually do not recognize this protective policy. Neither, of course, do they know that respectable and acceptable colleges are accredited and need to meet certain faculty standards before degrees will be accepted generally, and particularly for transfer to other institutions and to advanced programs. This fact of university life is indeed disturbing to some, yet there is also widespread recognition that it protects both quality and student.

4. Institutions are also concerned about the nature of the clientele to be served. After the Second World War higher educational institutions did find that thousands of G I's who had not finished high school could qualify for college attendance by examination. Since then most institutions have accepted a variety of alternatives to four year diplomas granted for high school attendance. The route is open. However, this does not mean that higher educational institutions are willing to accept those with less than capacity to do the intellective tasks traditionally required. Programs are consequently examined in terms of what clientele is considered in the resource pool and evidence is requested with respect to the ability of prospective students to compete in

studentship with those registered in other programs offered. With this naturally goes the question of the extent and of the continued sufficiency of the resource pool. Many institutions have offered courses, employed instructors, and developed courses and materials only to find that the promised volume of ambitious students was not forthcoming. Such institutions are not easily convinced subsequently of the great appetite for further education in new plaintiffs.

5. Colleges and university staffs, as a result, expect the following procedures to be used in developing proposals for their consideration.

    a - Accumulation of sound descriptive and statistical evidence that growth in complexity and technical demand in the special field clearly call for increased numbers of those upon whom there are requirements for the use of higher order intellective attributes.

    b - Detailed analyses and translation of those attributes (skills, knowledge, understanding, attitudes) into terms meaningful for course of study development and program organization at the college level.

    c - Promotion of and attainment of widespread support in voluntary organizations representative of and related to the activity; e. g., International Association of Fire Chiefs, The Society of Fire Department Instructors, State Chiefs Organization, and Fire Fighter Unions and Associations.

    d - Intensive involvement of official bodies and units vested with the responsibility for setting qualifications, establishing certification conditions, employing and promoting personnel; e. g. Board of Control, city managers, licensure agencies, accrediting groups.

    e - Active participation of advisory groups in further developing conditions which will insure the employment and continued growth and promotion of those educated through the programs offered.

RECOMMENDATIONS FOR FIRE SCIENCE PROGRAM DEVELOPMENT AND IMPLEMENTATION

Recommended steps for the Fire Chief to follow in developing and implementing college level programs of higher education.

A. Determine the Need.

Before approaching the local educational authorities it is recommended that a survey of the community be conducted to ascertain both immediate needs and long range projections. The scope of the survey should cover organizations within a realistic commuting distance to the educational institution, usually a maximum of thirty miles. In addition to surveying, fire departments contact industrial organizations, hospitals, governmental agencies, etc. In industry, the Industrial Relations Manager, or the Director of Personnel, would be in a position to provide such information.

B. Instructional Personnel.

It is recommended that every effort be made to recruit instructors knowledgeable in the firematics and acceptable to the educational authorities. To qualify, the instructors should have a Bachelor's degree, preferably a Master's, in a related field. Industry is a prime source to provide these persons and is usually very willing to cooperate.

C. Schedule Exploratory Meeting with College.

The rapport between town and gown has increased significantly in recent years as the community college endeavors "to meet the education needs of the community." Therefore, a completed survey, reinforced with reliable information related to educational needs, and manpower utilization, etc. will provide an excellent frame of reference and setting for your first meeting with the college representatives.

D. Advisory Committee.

With the assistance of the educational representatives organize a Fire Science Advisory Committee. The Committee should be broad gauged and include representatives of the fire department, industry, education, interested community officials, etc. Limit the number to fifteen. The Advisory Committee can make a valuable contribution toward achieving the successful development and implementation of the program by: (1) creating interest in the project. (2) working closely with the college officials and faculty in developing the curriculum. (3) recommending the the type of program i. e. Associate Degree, (A.A.S.) or Certificate Program to be developed and implemented. (4) Evaluating the program at periodic intervals.

E. Class Size.

The size of the class will be of prime importance to the college. It is recommended that if a degree program is to be implemented, the initial en-

rollment should be at least fifteen students. Also, it is very important for the community to provide similar enrollments in subsequent years. In the event your survey indicates that following the initial enrollment, additional enrollments of between 10-20 persons are not possible, it may not be economically advisable for the college to provide a degree program.

In this case, we recommend that you consider a certificate program, as this type of endeavor provides greater flexibility related to enrollments, educational qualifications of candidates, etc.

F. Time Factor.

Take your time! Develop the program with purpose. Design your program to meet your local needs. Think in terms of the future.

STATE FIRE TRAINING SUPERVISORS

Alabama: W. L. Rickard
Trade & Industrial Education
Box 2847, University, Ala.

Arizona: Jake Siken
State Training College
Phoenix Fire Department
10 North 3rd Ave.
Phoenix 85003

Arkansas: Whit Murphy
State Education Building
Little Rock, Arkansas 72201

California: Edward W. Bent
State Department of Education
721 Capitol Mall
Sacramento, Cal. 95814

Colorado: Anthony A. Pisciotta
State Board for Vocational Ed.
32 State Services Building
Denver, Colorado, 80203

Connecticut: Andrew J. Flanagan
State Department of Education
401 Flatbush Ave.
Hartford, Conn.

Delaware: Leon F. Osinkski
Director of Vocational Educ.
Wilmington Public Schools
H. F. Brown Technical H. S.
14th & Market Sts.
Wilmington, Delaware, 19801

District of Columbia: Loyde N. Balcom
Fire Training Division
District Building
14th & E Streets, N. W.
Washington, D. C.

Florida: W. H. Barnett
Florida State Fire College
P. O. Box 785
Ocala, Florida 32670

Georgia: Harold G. Thompson
Georgia Fire Institute
Industrial Education Dept.
Georgia Institute of Technol.
Atlanta, Georgia 30332

Idaho: Steve Taylor
Fire Department, 520 Idaho St.
Boise, Idaho

Illinois: W. J. Eckert, Head
Firemanship Training
University of Illinois
Champaign, Ill.

Indiana: Harvey H. Hacker
Educational Director, State
Fire Marshal Dept.
502 State Office Building
Indianapolis, Indiana

Iowa: Keith Royer, Fire Service Ext.
Iowa State University
Ames, Iowa

Kansas: Edgar M. Munday, Asst. Chief
Johnson Co. Fire Dist. No. 2
Prairie Village, Kansas

Kentucky: J. L. Thompson, Chairman
Kentucky Fire School Committee
940 Starks Building
Louisville, Kentucky 40202

Louisiana: Julian A. Martin, Coordinator
Louisiana State University
Fireman's Program, General
Extension Div.
Baton Rouge, Louisiana

Maine: Donald Marchildon, Super.
Fire Service Training
Trade & Indust. Education
Department of Education
Augusta, Maine 04330

Maryland: Rexford Wilson, Director
Fire Service Extension
University of Maryland
College Park, Maryland 20742

Massachusetts: William McConnell
Senior Supervisor
Department of Education
200 Newbury St.
Boston, Mass.

Michigan: Francais Hartman
Civil Defense & Disaster
Training Center
University of Michigan
North Campus
Ann Arbor, Mich. 48103

Minnesota: E. L. Weber, Asst. Comm.
Fire Marshal Division
State Office Building
St. Paul, Minnesota

Mississippi: J. W. Lewis
Trade & Industrial Education
Div. of Vocational Education
Box 771
Jackson 5, Miss.

Missouri: W. Bush Walden, Admin. Asst.
Firemanship Training
Fire Training Building
1001 Ashland Gravel Road
Columbia, Missouri

Montana: W. Lyle Roesseler
Trade & Industrial Education
Vocational Educational Div.
State Dept. of Public Instruction
State Capitol Building
Helena, Montana 59601

Nebraska: William A. Berens, Chief
Fire Engineering Training
Instructor
Box 206
Gibben, Nebraska 68840

Nevada: H. B. Matherly
Fire Service Instructor
State of Nevada
Capitol Building
Carson City, Nevada

New Hampshire: Howard Swain, Director
Trades and Industrial Annex
State House
Concord, N. H.

New Jersey: Robert L. Tarbox, Director
Industrial & Fire Division
New Jersey State Safety Council
24 Branford Place
Newark, N. J. 07102

New Mexico: Jack Boulton
Assistant State Supervisor
Trade & Indust. Education
State Dept. of Education
Santa Fe, New Mexico

New York: Anthony R. Granito, Supervisor of Fire Training
Office of Local Government
Division of Fire Safety
155 Washington Avenue
Albany 10, N. Y.

North Carolina: Chief Cosmos L. Cox,
Director-Conductor
North Carolina Fire College
& Pump School
Fire Dept. Headquarters
Durham, North Carolina

North Dakota: G. H. Mowers, State Dir.
Trade & Indust. Education
State School of Science
Box A
Wahpeton, No. Dakota 58075

Ohio: Byrl R. Shoemaker, Director
Vocational Education
Dept. of Educ., Room 612
State Office Building
Columbus, Ohio 43215

Oklahoma: G. L. Sartain, Fire Protection Dept.
Oklahoma State University
Stillwater, Oklahoma

Oregon: R. P. Moblen, Fireman
Training Spec.
305 Public Service Bldg.
Salem, Oregon 97310

Pennsylvania: Clayton H. Canterbury, Supv.
Fire Service Training
Public Service Institute
Penna. State Fire School
Lewiston, Penna.

Rhode Island: Captain Michael Fox, State
Supvr. Fireman Training
East Providence, R. I.

So. Carolina: H. B. Wells, South Carolina State Firemen's Ass'n.
Fire Training Service
Route 1, Box 149
Prosperity, So. Carolina
29127

So. Dakota: Earl Hood, Director of Firemen's Training
Spearfish, South Dakota

Tennessee: Homer S. Elkins, Director of State Fire Service School
215 Chesnut Street
Chattanooga, Tenn.

Texas: H. D. Smith, Director,
Firemens Training School
Texas A. & M. College
College Station, Texas

Utah: Von H. Robertson
State Supervisor of Training, Trade & Industrial Education
Salt Lake City, Utah

Vermont: Walter B. Read, Coordinator,
Vermont State Firefighters" Asscciation
Office of the Coordinator
East Dorset, Vermont

Virginia: R. Lawrence Oliver
State Dept. of Education
P. O. Box 654
Harrisonburg 22801

Washington: Lyle Goodrich, Supervisor
Fire Training, State Board for Vocational Education
Box 250, Olympia, Wash.

West Virginia: R. E. Hanna, Jr. Asst. Director, Fire Service Extension School
West Virginia University
Morgantown, W. Va. 26506

Wisconsin: William E. Clark, Supervisor,
Fire Service Training
State Board of Vocational and Adult Education
Room 720, State Office Bldg.
Madison, Wisconsin, 53702

Wyoming: Charles A. Kline, State Direct. Trade & Industrial and Technical Education, State Department of Education
Vocational Division
Capitol Building
Cheyenne, Wyoming

STATE FIRE MARSHALS

Alabama: J. B. Kitchens
Department of Insurance
400 State Administrative Bldg.
Montgomery, Alabama 36104

Alaska: Robert Crouse, Dept. of Public Safety
Box 2719
Juneau, Alaska

Arizona: G. A. Bushnell
Director of Insurance
718 West Glenrosa
Phoenix, Arizona

Arkansas: Capt. William C. Stuebing
Arkansas State Police
P. O. Box 1751
Little Rock, Arkansas

California: Glenn B. Vance
1025 P Street
Sacramento 14, Calif.

Colorado: James A. Underwood
Safety Inspection Div.
Industrial Comm. of Colorado
150 East 13th Avenue
Denver, Colorado 80203

Connecticut: Major Carroll E. Shaw
Deputy State Fire Marshal
Dept. of State Police
100 Washington Street
Hartford, Conn.

Delaware: William R. Favinger
P. O. Box 109
Dover, Delaware

Dist. of Columbia: Hugh A. Groves
Fire Prevention Division
Room 223, District Building
14th & E Sts. N. W.
Washington, D. C.

Florida: Broward Williams
State Capitol
Tallahassee, Florida

Georgia: John R. Gore, Jr.
State Capitol, Room 132
Atlanta, Georgia

Hawaii: Sidney L. Hashimoto
Dept. of Regulatory Agencies
Honolulu, Hawaii

Illinois: William J. Cowley
Div. of Fire Prevention
613 Armory Building
Springfield, Ill.

Indiana: Norman M. Fesler
100 N. Senate Avenue
502 State Office Building
Indianapolis, Indiana

Iowa: Wilbur R. Johnson
New State Office Building
Des Moines, Iowa

Kansas: Fred R. Farr
State Office Building
Topeka, Kansas

Kentucky: Harold L. Foster
Dept. of Public Safety
New State Office Building
Frankford, Kentucky

Louisiana: Milton Stirr
106 State Office Building
New Orleans, Louisiana

Maine: C. F. Rogan, Acting State
Director for Fire Prevention
State House
Augusta, Maine

Maryland: James C. Robertson
301 W. Preston St., Rm. 805
Baltimore, Maryland

Massachusetts: Ralph L. Garrett
Dept. of Public Safety
1010 Commonwealth Avenue
Boston, Mass.

STATE FIRE MARSHALS
(Cont'd)

Michigan: Glenroy M. Walker, Chief
Fire Marshal Division
Michigan State Police
714 So. Harrison
East Lansing, Michigan, 48824

Minnesota: Cyrus E. Magnusson
Insurance Division
570 State Office Bldg.
St. Paul, Minn.

Mississippi: Walter Dell Davis, Comm.
Insurance Department
Jackson, Miss.

Montana: William A. Penttila
State Capitol Building
Helena, Montana

Nebraska: Joseph F. Divis
State Capitol
Lincoln, Nebraska

Nevada: Richard H. Bart
Carson City, Nevada 98701

New Hampshire: Aubrey G. Robinson
Concord, New Hampshire

New Mexico: R. F. Apodaca
P. O. Drawer 1269
Santa Fe, New Mexico

New York: George H. Proper, Director
Office of Local Government
Division of Fire Safety
155 Washington Avenue
Albany, N. Y. 12210

North Carolina: N. E. Canady
Insurance Department
Box 351, Labor Building
Raleigh, N. C.

North Dakota: Vance Arneson
Deputy State Fire Marshal
State Capitol
Bismarck, North Dakota

Ohio: George Schlotterbeck
21 West Broad Street
Columbus, 15, Ohio

Oklahoma: Jack C. Sanders
4040 North Lincoln
Oklahoma City, Oklahoma

Oregon: C. Walter Stickney
111 Labor & Industries Building
Salem, Oregon

Pennsylvania: Captain J. E. Sacriste
Pennsylvania State Police
Room 613, South Office Building
Harrisburg, Penn.

Rhode Island: Walter E. Stone
Rhode Island State Police
P. O. Box 185
North Scituate, Rhode Island

South Carolina: Charles W. Gambrell
Federal Land Bank Building
Columbia, South Carolina

South Dakota: J. P. Menning
State Capitol
Pierre, South Dakota

Tennessee: Floyd M. Murphy
Dept. of Insurance and Banking
State Office Building
Nashville 3, Tennessee

Texas: J. N. Nutt
State Board of Insurance
1110 San Jacinto Street
Austin 1, Texas

Utah: Robert A. Tanner
117 State Capitol
Salt Lake City, Utah

Vermont: Captain John L. Vergin
Dept. of Public Safety
Redstone Building
Montpelier, Vermont

STATE FIRE MARSHALS
(Cont'd)

Virginia: C. S. Mullen, Jr.
P. O. Box 1157
Richmond 9, Virginia

Washington: Lee I. Kueckelhan
Department of Insurance
Insurance Building
Olympia, Washington

West Virginia: Lewis E. Myles
Charleston, West Virginia

Wisconsin: Charles L. Manson
711 West Wells Street
Milwaukee 3, Wisconsin

Wyoming: Edwin P. Bradley
State Labor Department
301 Capitol Building
Cheyenne, Wyoming